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Memorandum from the Office of the Inspector General

February 14, 2006

Paul R. LaPointe, WT 3A-K

**TRANSMITTAL MEMORANDUM – INSPECTION 2006-510I – BELLEFONTE NUCLEAR  
PLANT CONSTRUCTION INVENTORY REVIEW**

Attached is the subject presentation for your review. As discussed with your staff on February 13, 2006, this inspection is being issued for informational purposes only; therefore, no response is necessary.

Pursuant to a Congressional directive, we also are forwarding a copy of this report to the House and Senate Committees on Appropriations. In addition, we are considering whether this report and/or a summary should be posted on the OIG Web page. Please advise us if you believe this report contains any sensitive information which should be withheld (including the response(s) to the draft report). If we have not heard from you within 20 calendar days of the date of this memorandum, we will assume you have no objection to release of this report in its entirety.

If you have any questions, please contact R. Darryl Bryant, Manager, Inspections, at (423) 751-4415 or Gregory C. Jaynes, Deputy Assistant Inspector General, Inspections, at (423) 751-7821. We appreciate the courtesy and cooperation received from your staff during this review.

Ben R. Wagner  
Assistant Inspector General  
(Audits and Inspections)  
ET 3C-K

EAH:RDB:SDB

Attachment

cc (Attachment):

Tom D. Kilgore, WT 7B-K  
William H. Lehman, ET 5A-K  
John E. Long, Jr., WT 7B-K  
Richard W. Moore, ET 4C-K  
Ellen Robinson, WT 7C-K  
OIG File No. 2006-510I

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# Bellefonte Nuclear Plant Construction Inventory

2006-510I

February 14, 2006



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# Objective and Scope

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## Objective:

- ◆ Determine if Bellefonte Nuclear Plant's (BLN's) construction inventory records accurately reflect the actual warehoused equipment, materials, and supplies.\*

## Scope:

- ◆ BLN's warehoused materials that were purchased for construction, as identified by Procurement records.

\* For the purposes of this review, the term "materials" will be used to refer to the inventory of construction equipment, materials, and supplies.

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# Background

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- ◆ In 1974, TVA began construction on BLN.
  - The BLN design called for the construction of two units.
  - Construction on both units was started and subsequently deferred-- Unit 2 in 1985 and Unit 1 in 1988.
- ◆ Materials were purchased for both the construction phase and the anticipated operation of the plant.
- ◆ Purchases of construction materials and operating inventory were charged directly to the project. The Passport system is currently being used only as a tracking tool for the operating inventory.
- ◆ On September 20-21, 2004, a team from the Controller's office performed a review of the operating inventory. The review found:
  - Inventory control and tracking deficiencies.
  - Inventory shortages which resulted in a \$1.3 million accounting adjustment.

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# Background (cont'd)

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- ◆ Procurement did a physical count of the construction inventory in 1998 and logged the information into Excel spreadsheets. According to Procurement:
  - The original purchase order, invoice, and/or shipping documentation was examined to determine the cost of each item.
  - The original cost for many individual items and/or groups of items could not be determined due to:
    - ◆ Either missing, incomplete, or illegible documentation.
    - ◆ The material cost was not specifically identified in the contract or purchase order.
  - When the original cost could not be determined, the unit cost information was either left blank or filled with an indicator that used some combination of nines (e.g., 99.99, 999.99, and 9,999.99).

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# Background (cont'd)

	TOTAL COMMODITIES--PER PROCUREMENT LISTING	TOTAL REPORTED COST
Inventory with a reported original cost provided	4,101	\$ 15,220,777
Inventory with an unknown cost	3,521	Unknown

- ◆ Procurement has begun disposing of all materials at BLN, including both the construction and operating materials.
- ◆ TVA has contracted with NuMarkets, LLC, to (1) facilitate the sale of some of the low cost surplus materials and (2) reduce TVA's labor cost associated with surplus sales.
  - "TVA will use Contractor for a pilot program in selling non-nuclear materials through Contractor's online marketplace."
- ◆ At the request of Procurement, we initiated this inspection to determine if the construction inventory spreadsheets fairly represent the construction materials to be liquidated at BLN.\*

\* Our review did not include the operating inventory (i.e., Power Stores Inventory) previously assessed by the TVA Controller's office.

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# Methodology

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- ◆ We tested the accuracy of the Procurement construction inventory listings by physically verifying the existence of selected materials. Specifically:
  - For 24 commodities, where the unit cost times the reported quantity on-hand equaled or exceeded \$50,000, we verified the existence of all materials.
  - For commodities, where the unit cost times the reported quantity on-hand equaled \$100, but was less than \$50,000, we selected a statistical sample for verification.\*
  - For commodities, where no cost could be provided, we selected a statistical sample for verification.\*

This inspection was conducted in accordance with the “Quality Standards for Inspections.”

\* We used attribute sampling methodology to identify sample sizes and evaluate the results. The sample selections were made randomly. Each sample size was based on a 4 percent maximum tolerable error rate and 5 percent risk of incorrect acceptance.

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# Summary

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We found that for 213 commodities selected for review, approximately 95 percent of the items pertaining to these commodities were actually warehoused at BLN.

- However, the sales price of the inventory will likely be a lesser amount than the original purchase cost due to the condition of the material.

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# Observation 1 – Physical Verification of Materials

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We found that for 194 of the 213 commodities we selected for verification, the individual items warehoused at BLN equaled the quantity shown on the Procurement inventory listing.

- For 24 commodities, where the unit cost times the reported quantity on-hand equaled or exceeded \$50,000, we found:
  - ◆ The actual quantity on-hand equaled the amount reported in the inventory spreadsheet.
  - ◆ Our verification represented 3,891 individual items with an approximate cost of \$2.4 million.

For 95 commodities, where the unit cost times the reported quantity on-hand equaled \$100, but was less than \$50,000, we found:

- No quantity on-hand could be found for 6 commodities and the actual quantity on-hand was deficient for two other commodities.
- Our verification represented 1,331 individual items with an approximate cost of \$234,000.
- The deficiencies represented 266 missing items with an approximate cost of \$7,000.

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# Observation 1 – Physical Verification of Materials (cont'd)

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For 94 commodities, where no cost could be provided, we found:

- No quantity on-hand for 11 of the 94 commodities selected.
- Our verification represented 795 individual items.
- The deficiencies represented 39 missing items and over 2,000 feet of missing cable.

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# Observation 2 – Condition of Materials

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We found the proceeds from the liquidation of the construction inventory may not equal the original cost, due to the condition of the materials. Specifically:

- We observed rusting, water damaged, and deteriorating materials, as a result of exposure to the elements resulting from some poor/aging warehousing conditions.
- Procurement has already sold some heat trace cable and, according to the purchaser, the cable failed testing.
- We were told by Procurement that the value today would most likely be a lesser amount due to obsolescence, lack of maintenance, exposure to the elements, and that much of the materials were fabricated for BLN and would have no application for any other plant.
- The Controller's group also noted in their September 2004 review that some storage buildings were in bad need of repair--some buildings had destroyed walls.

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# Observation 2 – Condition of Materials (cont'd)

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**Storage Building Yard A - Exterior**

**Warehouse HJ - Interior**



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